

REMARKS

INTRODUCTION

In accordance with the foregoing, the drawings and specification have been amended. Claims 4-6, 8 and 10 are pending and under consideration.

EXAMINER INTERVIEW

The Applicant extends his thanks for the courtesy shown to the Applicant's representative during the telephone Examiner Interview held on February 4, 2008.

In the interview, the Examiner noted that he believed he understood the present invention, however the form of application created some confusion, particularly Figures 7B and 8, which did not appear to correlate with each other in that Figure 7B showed two zero points and Figure 8 showed three zero points.

In the Interview, it was suggested that Figure 8 and paragraphs [0038] and [0039] be deleted and paragraphs [0023], [0040], [0041], [0043], [0044], [0046] and [0047] and Figures 9A and 9B be amended.

However, upon further consideration by the Applicant, it is believed that correcting the legend of Figure 8 so that "Vo" is "L1-L2", and further that paragraphs [0023] and [0038] – {0043} be amended to comply with this change, that the specification and drawings will comply with the requirements of 35 USC 112, first and second paragraphs.

ADVISORY ACTION

In the Advisory Action mailed on January 18, 2008, the Examiner that the Applicant's previous reply overcame the rejections under 35 USC 112, second paragraph, and 35 USC 102. However, the Examiner noted that if an important aspect of the present invention is that the coil origin is close to the upper core origin when the piston is at or near top dead center, that this aspect is not adequately described in the disclosure. The Examiner notes that based on the explanation given in the previous response, a 35 USC 112, first paragraph, rejection would be issued presumably based on lack of written description.

In view of the Examiner Interview discussed above and the current amendments to the specification, it is respectfully submitted that paragraphs [0040] – [0042] of the specification adequately disclose the aspect of the present invention where the difference value L1-L2 graph has a second zero point in a top area if the upper core origin of the upper core 4a passes the

coil origin, and the difference value L1-L2 graph has a third zero point in a bottom area if the center point of the lower core 4b passes the coil origin.

Regarding support for these amendments, it is respectfully submitted that as it is disclosed in paragraphs [0035] and [0037] of the specification that the inductance L1 of the first sensor coil 2a and inductance L2 of the second sensor coil 2b are changed according to piston position, that these amendments to Figure 8 and the specification do not include new matter.

Accordingly, it is respectfully submitted that the present application meets the requirements of 35 USC 112, first and second paragraphs.

Reconsideration is respectfully requested.

AMENDMENT TO THE DRAWINGS AND SPECIFICATION

As noted above, Figure 8 and paragraphs [0023] and [0038] -- [0043] have been amended in order to improve the form of the specification and further to comply with 35 USC 112, first and second paragraphs.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: Gregory W. Harper
Gregory W. Harper
Registration No. 55,248

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501